Infections with cardiopulmonary and intestinal helminths and sarcoptic mange in red foxes from two different localities in Denmark - DTU Orbit (09/11/2017)

Infections with cardiopulmonary and intestinal helminths and sarcoptic mange in red foxes from two different localities in Denmark

Monitoring parasitic infections in the red fox is essential for obtaining baseline knowledge on the spread of diseases of veterinary and medical importance. In this study, screening for cardiopulmonary and intestinal helminths and sarcoptic mange (Sarcoptes scabiei) was done on 118 foxes originating from two distinct localities in Denmark, (Copenhagen) greater area and southern Jutland. Fifteen parasite species were recorded in 116 foxes (98.3%), nine parasitic species are of zoonotic potential. Parasite diversity was greater in foxes of Copenhagen in terms of overall parasite species richness and species richness of all helminth groups individually: trematodes; cestodes; and nematodes. Six parasite species were recovered from foxes of Copenhagen, but not from foxes of Southern Jutland: Echinochasmus perfoliatus; Echinostoma sp.; Pseudamphistomum truncatum; Dipylidium caninum; Angiostrongylus vasorum; and Sarcoptes scabiei, but Toxascaris leonina was only recorded in foxes of southern Jutland. A high prevalence and abundance of A. vasorum in foxes of Copenhagen was observed. The prevalence of four nematode species; Eucoleus (Capillaria) aerophilus, Uncinaria stenocephala, Toxocara canis, and Crenosoma vulpis, in foxes of both localities were comparable and ranging from 22.9% to 89%. The prevalence of Mesocestoides sp. was significantly higher in foxes of Copenhagen. Taenia spp. were detected using morphological and molecular analysis, which revealed the dominance of T. polyacantha in foxes of both localities. Infections with sarcoptic mange were evident only among foxes of Copenhagen (44.9%), which significantly affected the average weight of the infected animals. Further remarks on the zoonotic and veterinary implications of the parasites recovered are given.

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